Curriculum vitae - Marianna Meo, PhD

As an industrial biomedical engineer with extensive academic experience, the main goal of my research is developing tools to help electrophysiologists in the comprehension and diagnosis of cardiac arrhythmia and better supporting patients' treatment

Nationality: Italian. Gender: Female

Date and Place of Birth: 16/08/1985, Naples, Italy

Based in Eindhoven, the Netherlands

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Positions/Employment

Dates	Role and Activities
Since 2022	**Advanced Concept Development Engineer (Principal Level)**, Boston Scientific • Development of signal processing algorithms for the Rhythmia mapping system • Technical support on mapping modules for physician-guided/R&D projects • Supporting Tech suites/Innovation Rooms at clinical congresses (HRS/EHRA)
2021-22	**Advanced Research Scientist**, EPD-Solutions, a Philips Company • Development of signal processing algorithms for the KODEX mapping system • Supporting training activities for field specialists with the Marketing team • Supporting Tech suites/Innovation Rooms at clinical congresses (HRS/EHRA) • Evaluation of emerging companies and start-ups
2019-21	**Researcher**, IHU Liryc, Bordeaux-Pessac, France Development of intracardiac and body surface signal processing to investigate basic mechanisms of cardiac arrhythmias, improve their diagnosis and guide therapy
2018-21	**Teaching Assistant**, ENSEIRB[1], Talence-Bordeaux, France • Lab activities (TP[2]) in digital signal processing[3] (ENS2, semester 1): basics of filtering and frequency analysis. Number of hours: 26 (HETD[4]: 17). Supervisor: Prof. Yannick Berthoumieu and Rémi Giraud, PhD • MATLAB lab activities (TP) for electrocardiogram analysis[3] (TS110, semester 2). Number of hours: 20 (HETD: 27). Supervisor: Prof. Yannick Berthoumieu
2015-18	**Postdoctoral Researcher**, IHU Liryc, Bordeaux-Pessac, France Development of signal processing algorithms to identify targets for cardiac ablation and investigation of relations to noninvasive technologies.
2014-15	**Postdoctoral Researcher**, Brigham and Women's Hospital, Harvard Medical School, Boston, MA, USA Parch-clamp acquisition and processing of cardiac action potentials in animal models of cardiac arrhythmias

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[1] *École Nationale Supérieure d'Electronique, Informatique, Télécommunications, Mathématique et Mécanique de Bordeaux*
[2] *Travaux pratiques*
[3] *Traitement numérique du signal*
[4] Equivalent TD. TD: *Travaux dirigés*

2013-14   **Teaching Assistant (ATER[5])**, Network and Telecommunication (RT-IUT[6]), and Electrical and Information Science Engineering Departments (GEII[7]), UNS-CNRS/ UMR7271[8], Sophia Antipolis, France. Semester 1 (2013/14). Number of hours: 155 (32 TD +123 TP, HETD: 114).

- Notions of electronics (M1108, DUT 1[9]) and signal processing (M1107, DUT 1[10]), and introduction to the use of measuring instruments. Supervisors: Nicolas Fortino, PhD, and Fréderic Payan, PhD
- MATLAB for signal processing (MC-TNS, DUT 2[11]). Supervisor: Prof. Vicente Zarzoso

2010-14   **Signal Team Member**, I3S Laboratory, UNS-CNRS, Sophia Antipolis, France

- PhD thesis: Spatio-temporal characterization of the surface electrocardiogram for catheter ablation outcome prediction in persistent atrial fibrillation. Supervisors: Prof. Vicente Zarzoso and Prof. Olivier Meste.
- Prediction of atrial fibrillation therapy outcome through multivariate processing of noninvasive cardiac signals

2009-10   **Biomedical Engineer**, I3S Laboratory, UNS-CNRS, Sophia Antipolis, France
Algorithm implementation and testing for biomedical image classification

2007   **Biomedical Engineer**, Das SRL, Rome, Italy

- Development of an indirect immunofluorescence (IFA) system
- Design of a LED lighting system
- Algorithm implementation for IFA image processing

Education/Training

PhD   Automatic, signal and image processing, I3S Laboratory[12], UNS-CNRS/ UMR7271, Sophia Antipolis, France (12/2013)

MSc   Biomedical Engineering, Campus Biomedico University, Rome, Italy (10/2009)

BSc   Biomedical Engineering, Campus Biomedico University, Rome, Italy (07/2007)

Honors/Awards

2022   Philips internal recognition, **Best Team Activity – EHRA Tech Suite**

2019   Jean-François Debrois Prize 2018, **My paper in 180 seconds** (250 €)

2018   Lefoulon Delalande, **research fellowship** (50k €)

2012   DreamIt - Fondation UNS, **research fellowship** (10k €)

2011   8th IEEE-EMBS International Summer School on Biomedical Signal Processing, Siena, Italy, **best poster** (300 €)

Workshops and technical schools attended

2016   Liryc Scientific Workshop, Pessac-Bordeaux, France

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[5] *Attaché Temporaire d'Enseignement et de Recherche*
[6] *Réseaux et Télécommunication-Institut Universitaire de Technologie*
[7] *Génie Électrique et Informatique Industrielle*
[8] *Université Nice-Sophia Antipolis-Centre National de la Recherche Scientifique/Unité Mixte de Recherche 7271*
[9] *Acquisition et codage de l'information*
[10] *Initiation à la mesure du signal*
[11] *Traitement numérique du signal*
[12] *Laboratoire d'Informatique, Signaux et Systèmes de Sophia Antipolis*

2011	*6ème Ecole d'Été de Peyresq en Traitement du Signal et des Images*, Peyresq, France
2011	8th IEEE-EMBS Summer School on Biomedical Signal Processing, Siena, Italy
2011	*État de la Recherche-Théorie de l'Apprentissage*, Paris, France

Scientific Expertise

Research Topic Editor: Frontiers in Physiology, Frontiers in Signal Processing

- **International journal peer reviewer**: Frontiers in Physiology, IEEE Transactions on Biomedical Engineering, IEEE Journal of Biomedical and Health Informatics, Annals of Biomedical Engineering, Sensors, Computer Methods and Programs in Biomedicine, Biomedical Signal Processing and Control, Expert Review of Medical Devices, Eurasip, Computers in Biology and Medicine, Journal of Advanced Research, Entropy, Sustainability, Applied Sciences, Medical and Biological Engineering & Computing, Algorithms, Journal of Clinical Medicine, Brain Sciences

- **International conference peer reviewer**: Computing in Cardiology (CinC), IEEE Engineering in Medicine and Biology Society (EMBC)

- **International conference chair**: CinC (since 2014), Heart Rhythm Society (since 2023)

- **Scientific society member**: IEEE Engineering in Medicine and Biology Society (2010-2015)

Collaborations and mobility

2019	**Maastricht University**, the Netherlands (Dr. Pietro Bonizzi)
2015	**New York Medical College**, Valhalla, NY, USA (Dr. Marcello Rota)
2013	**Massachusetts General Hospital – Harvard Medical School**, Boston, MA, USA (Dr. Riccardo Barbieri)
2011	**Polish Academy of Sciences**, Warsaw, Poland (Prof. Roman Maniewski)
2011	**National Center of Research**, Rome, Italy (Dr. Gianfranco Ferrari)
2011	**UNS-CNRS**, Nice, France (Prof. Olivier Meste)

Social responsibilities

2015	**Local committee member**, Computing in Cardiology, Nice, France
2014	**Local committee member**, Computing in Cardiology, Cambridge, MA, USA
2012-13	**Volunteer**: I3S Laboratory committee; Alpes Maritimes Young Researchers' Association (AJC06); STIC Doctoral School PhD Students' Association (ADSTIC); UNS Scientific Committee; LEO Club Nice Comte

Other

Languages	Italian (mother language); English (fluent; IELTS certificates: PET, FCE); French (fluent); Spanish (notions); Dutch (notions)
Computer science	Programming: Matlab, Visual Basic 6.0, Latex, HTML (good level), C++ and Php (notions), Python (intermediate). Operating systems: Windows (good level), Linux (intermediate). Software: Matlab, Simulink, MS Office, GraphPad Prism, SigmaPlot, LabChart, pCLAMP. Other: network administrator certification CISCO IT Essential II
Hobbies	Traveling, reading, art, music. Sport: fitness, volley, dance (ZUMBA coach licence), biking